

Attorney Docket No. 01764/LH

**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant(s): H. ONO et al

Serial No. : Based on
PCT/JP01/03271

Filed : Herewith

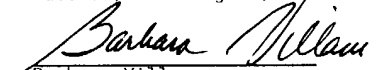
For : HIGH-FREQUENCY CURRENT
SUPPRESSOR CAPABLE
OF BEING READILY
ATTACHED TO CABLE...

Art Unit :
Examiner :

Express Mail Mailing Label
No.: EV 044 466 255 US

Date of Deposit: December 14, 2001

I hereby certify that this paper is
being deposited with the United States
Postal Service "Express Mail Post Office
to Addressee" service under 37 CFR 1.10
on the date indicated above and is
addressed to the Asst. Commissioner for
Patents, Washington, D.C. 20231


Barbara Villani

In the event that this Paper is late
filed, and the necessary petition for
extension of time is not filed
concurrently herewith, please consider
this as a Petition for the requisite
extension of time, and to the extent not
tendered by check attached hereto,
authorization to charge the extension
fee, or any other fee required in
connection with this Paper, to Account
No. 06-1378.

PRELIMINARY AMENDMENT

Asst. Commissioner for Patents
Washington, D.C. 20231

S I R :

IN THE SPECIFICATION:

Page 1: Please insert the following as the first sentence:

--This application is a U.S. National Phase Application
under 35 USC 371 of International Application PCT/JP01/03271
(published in English) filed April 17, 2001.--

IN THE CLAIMS:

Please substitute amended claims 5-9, 12-14 and 16-19 as
follows:

5. (amended) A high-frequency current suppressor as claimed
in any one of claims 1 through 4, wherein said high-frequency
current suppressor comprises composite magnetic material which
comprises soft magnetic powder obtained by flattening alloy
powder including at 25 least Fe, Si, Al, and binding material.

6. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

7. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises magnetic loss thin film which includes a first member comprising at least any one of Fe, Co, Ni, or mixture thereof and a second member comprising insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

8. **(amended)** An earphone system for use in a terminal of mobile communication, wherein said earphone system is provided with said high-frequency current suppressor as claimed in any one of claims 1 through 4.

9. **(amended)** An earphone system comprising a connection plug connected to an output terminal of an electronic equipment, an earphone, and a signal cable for connecting said connection plug with said earphone, wherein a high-frequency current suppressor comprising soft magnetic material is added at least partially to any one of said connection plug, said earphone, and said signal cable.

12. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor is provided near a portion where said signal cable and said earphone are connected to each other.

13. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor is included inside said earphone.

14. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said earphone system further comprises a microphone.

16. **(amended)** An earphone system as claimed in claims 9 or 10, wherein a housing of said earphone or said microphone is formed by said high-frequency current suppressor.

17. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Fe, Si, Al, and binding material.

18. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

19. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor comprises magnetic loss thin film which comprises a first member including at least any one of Fe, Co, Ni, or mixture thereof and a second member including insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

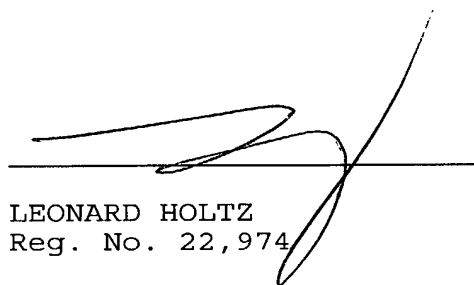
R E M A R K S

In accordance with 37 CFR 1.121(c), a clean copy of amended claims 5-9, 12-14 and 16-19 is set forth in the present Amendment, and a marked-up version of the amended claims 5-9, 12-14 and 16-19 is attached hereto.

A marked-up copy of page 1 of the specification, showing the changes made, is attached.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



LEONARD HOLTZ
Reg. No. 22,974

Frishauf, Holtz, Goodman, Langer & Chick, P.C.
767 Third Avenue - 25th Floor
New York, New York 10017-2023
(212) 319-4900

Fax No. (212) 319-5101

LH/bv

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 5-9, 12-14 and 16-19 have been amended as follows:

5. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises composite magnetic material which **[consisting of]** comprises soft magnetic powder obtained by flattening alloy powder including at least Fe, Si, Al, and binding material.

6. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor **[is consisting of]** comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

7. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor **[is consisting of]** comprises magnetic loss thin film which includes a first member **[consisting of]** comprising at least any one of Fe, Co, Ni, or mixture thereof and a second member **[consisting of]** comprising insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

8. **(amended)** An earphone system for use in a terminal of mobile communication, wherein said earphone system is provided

with said high-frequency current suppressor as claimed in any one of claims 1 through [7] 4.

9. **(amended)** An earphone system comprising a connection plug connected to an output terminal of an electronic equipment, an earphone, and a signal cable for connecting said connection plug with said earphone, wherein a high-frequency current suppressor **[consisting of]** comprising soft magnetic material is added at least partially to any one of said connection plug, said earphone, and said signal cable.

12. **(amended)** An earphone system as claimed in **[any one of claims 9 through 11]** claims 9 or 10, wherein said high-frequency current suppressor is provided near a portion where said signal cable and said earphone are connected to each other.

13. **(amended)** An earphone system as claimed in **[any one of claims 9 through 12]** claims 9 or 10, wherein said high-frequency current suppressor is included inside said earphone.

14. **(amended)** An earphone system as claimed in **[any one of claims 9 through 13]** claims 9 or 10, wherein said earphone system further comprises a microphone.

16. **(amended)** An earphone system as claimed in **[any one of claims 9 through 15]** claims 9 or 10, wherein a housing of said earphone or said microphone is formed by said high-frequency current suppressor.

17. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor [is consisting of] comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Fe, Si, Al, and binding material.

18. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

19. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor comprises magnetic loss thin film which comprises a first member [consisting of] including at least any one of Fe, Co, Ni, or mixture thereof and a second member including insulating material [consisting of] including at least more than one kinds of elements other than said Fe, Co, Ni.

DESCRIPTION

HIGH-FREQUENCY CURRENT SUPPRESSOR CAPABLE OF
BEING READILY ATTACHED TO CABLE OR THE LIKE AND
5 EARPHONE SYSTEM USING THE SAME

TECHNICAL FIELD:

The present invention relates to a high-frequency current
suppressor for suppressing high-frequency conduction noise in a
10 signal transmission cable used for various electronic information
equipment, such as a terminal equipment for mobile communication,
an audio-visual equipment, or the like, and also to an earphone
system using the high-frequency current suppressor.

15 BACKGROUND ART:

Conventionally, various signal transmission cables are
used for transmitting signals between devices or between
components in various electronic information equipment.

On the other hand, in various audio-visual equipment for
20 enjoying music or movies, an earphone system including a signal
transmission cable having a connection plug at its end, earphone or
headphone is utilized to enable a user to enjoy music or movies
without worrying about surrounding sound.

Further, an earphone system combining the above-
25 described earphone or headphone for enjoying music etc. and a
microphone has been used in recent years, for example, in a
terminal equipment for mobile communication, such as a portable
telephone, or the like. This makes hands-free communication

--This application is a U.S. National Phase Application
under 35 USC 371 of International Application PCT/JP01/03271
(published in English) filed April 17, 2001.--